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AUTHOR Hunkins, Francis P.
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ABSTRACT

Three unproven assumptions may account for the expository teaching used in new social studies which are designed for inductive teaching. 1) It is assumed that teachers and pupils ask questions of a high cognitive level, whereas research and informal observation support the opposite view. 2) Discovery learning requires a pure inductive strategy. 3) Innovations in school design and scheduling will facilitate new methods. A fourth assumption, that inservice teacher training in questioning strategies will alter teachers' questioning techniques, will be tested by a pilot study involving 30 teachers in two treatment groups and one control group. The first group will be instructed in specific questioning techniques; the second will consider articles that deal generally with the value of asking questions. The control group will receive no inservice training. The dependent variable will be scores on the Teacher-Pupil Question Inventory developed by Davis and Tinsley. Also to be studied are correlations between treatments and pupil achievement in social studies. SO 000 086 is a related document. (DJB)

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QUESTIONS ABOUT QUESTIONS IN SOCIAL STUDIES* **

Francis P. Hunkins
Associate Professor of Education
University of Washington
Seattle, Washington

Introduction

Today innovative social studies programs and materials designed to stimulate active learners bombard social studies educators. Stress is maximum on the various inductive teaching strategies teachers must or should utilize in light of these new programs. "Get the students involved " rings familiar. "Have students challenge the data" punctuates much of the literature dealing with education in general and social studies education in particular. At conventions, in our armchair laboratories, we educators applaud such stress, such insight for tooling students for 21st century living. However, as Norris Sanders (1968, p.140) pointed out in the NCSS's current yearbook, exposition is by far the most commonly used strategy of instruction. Can this be so with the current stress on new programs and inductive teaching? A problem exists.

Problem

In acquainting myself with several of the new social studies projects and much of the literature on inductive teaching and active pupil learning, it appeared that we are prematurely accepting three rather basic assumptions. Perhaps the acceptance of these assumptions without adequate evidence explains why much of our teaching is still expository at a time of great lip service to inductive strategies.

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The first assumption is that pupils and teachers are skilled questioners and capable of mounting these new social studies programs. The second assumption is that children can only approach or question data from an inductive reference. The third assumption is that educational environments and school schedules within which individuals are to question data have been altered to accommodate this change of intellectual activity. On what do we base these assumptions?

Up to ten years ago, the research on the entire area of questions was sparce. Now attention is being directed to researching the question. But recent research regarding teachers' questioning abilities in the classroom renders suspect the assumption that teachers are effective questioners and capable of really being effective with the new social studies materials. Floyd (1960) investigated the oral questioning activity of selected primary school teachers. He wished to reveal the current and prevalent oral questioning techniques of the "best" primary teachers and their classes in Colorado elementary schools. Analysis of taped discourses of thirty classrooms evidences that about seventy per cent of the oral expressions were delivered by the teacher and that 93 per cent of all questions were teacher originated. Concerning question quality, Floyd calculated that questions capable of stimulating thinking were employed only slightly more than 5 per cent of the time. Forty-two per cent of the questions asked were memory questions. Teachers' oral questions seemed to be used primarily to check factual recall, not to stimulate thinking. Additionally depressing was the finding that pupils in the investigation generally did not receive opportunities to question and that little time was provided either before or after teacher-talk for pupils to raise questions or obtain additional information.

Adams (1964) conducted another study of teachers' questions using a system of categories by which he classified the questions asked by secondary

school English and social studies teachers. His findings evidenced a dominating emphasis on memory questions.

In 1967, Davis and Tinsley developed a rating scale, Teacher-Pupil Question Inventory (TPQI), to measure the range of cognitive objectives manifested by the questions of 44 student teachers in secondary school social studies. This inventory had nine categories, the first seven adapted from Bloom's Taxonomy: memory, interpretation, translation, application, analysis, synthesis, evaluation, affectivity, and production. Observers trained in the use of the TPQI spent two periods recording the cognitive emphases of the questions asked by student teachers and pupils. The schedule consisted of 30 minutes of observation divided into alternating 5 minute segments. Inspection of the inventory list revealed that memory was the dominant question emphasis employed by both teachers and pupils.

Clegg in the same year attempted to do at the elementary level what Davis and Tinsley had done at the secondary level. A modified form of the TPQI was utilized to record the level of cognitive behavior of six student teachers. Critic teachers, trained in the use of the inventory observed the student teachers. Clegg's modified TPQI had only six categories, each representative of a level in Bloom's hierarchy. Clegg followed the same procedure for gathering data as did Davis and Tinsley. From results obtained, Clegg concluded that there existed a complete range of cognitive levels in the questions asked by the student teachers. Out of this range 27 per cent of the questions were classified as memory questions.

To be sure four research studies cannot present an adequate case as to the state of teachers' questioning abilities. However, additional research is lacking. But informal observation of teachers by this investigator and many of his colleagues do add support to these research conclusions. It therefore seems somewhat apparent that we in education are assuming that

teachers can effectively use various types of questions in specific teaching strategies.

The second aspect of this assumption deals with children's ability in asking questions. Again, a dearth of research exists. Back in 1929 Gatto conducted a study into the nature of pupils' questions in relation to various pupil characteristics. His investigation revealed that memorization was the most common study activity stimulated by classroom questions and that pupils questions reflected those types of questions present in textbooks and used by teachers. It would seem safe to assume, although we need much additional empirical evidence, that the questions that pupils ask will reflect the types they hear the teacher employ. Teachers are or should be exemplars of questions and questioning behavior.

Second Assumption:

The second assumption reflects our tendency to be "either-or" types of thinkers. It is either child-centered or subject-centered. It is either content-oriented or process-oriented. It is either inductive teaching and learning or deductive teaching and learning. Many current social studies methods books frequently diagram pupils solely dealing with materials and data in an inductive manner. This is misleading. Sanders (1968, p.140) mentions this misconception and states that a more accurate and useful conception of discovery encompasses a wide range of thinking practices--both inductive and deductive. But how often do we approach the new social studies thinking that the only way for the children to be involved is to be in the inductive frame? Somewhat ironic about this is that we often verbalize this misconception of active learning and questioning, but in reality fall into an overreliance of the expository method.

Third Assumption:

The third assumption implicit in the new social studies is that school

environments have been altered to accommodate new materials, new methods. In some parts of the country, new schools are being built with new environmental concepts to accommodate new activities. However, many new schools are still using the "Quincy Box" or the "egg crate" concept of a school but now with "modern" colors and materials. However, even if the box design were entirely thrown out, we need more than just open and flexible spaces for the new social studies. We need to consider just what are the suggested activities in these projects. Perhaps we need to get the children out of the school and into the community for some activities learning?

Despite our willingness in many cases to go to open spaces, we are still rigid in time scheduling. To be sure, we have flexible scheduling. But the majority of schools with such scheduling still only manipulate the school day within the "classical" five or six hour day and the 180 day year with the "standard times off." We need to question just why we need the 8-to-3 day with an hour for lunch. Perhaps some children need formal schooling only two hours a day and five months a year.

Current Scene

Still, the current scene is encouraging. But, it will be more encouraging when many of the things we are doing or advocating in social studies education have empirical support. We need to be providing teachers with pre-service and in-service training in questioning strategies and researching these ventures. We need to provide pupils with training in questioning. We need to further analyze pupils as active learners to more specifically identify the types of cognitive behaviors exhibited. We need to experiment with various types of time schedules and types of learning environments to see how they facilitate pupils questions and learning within social studies. We need to question. However, no one person is going to launch an attack on such a

broad base as these three assumptions imply. This investigator, who has done previous research with the affects of questions on pupils' thinking and social studies achievement, wished to see if teachers could have their questioning behaviors improved. This was the prime impetus for considering this particular research. It should be mentioned at this time, that this research to obtain some answers about teachers questions in social studies and how to influence teacher's questions is in the planning stage.

A Study--Its Objectives

The main objective seeks to determine if teachers questions and questioning strategies can be altered via in-service instruction having such a focus. The overall hypothesis stated in null terms is as follows:

Teachers receiving specific training in formulating and recognizing high level questions (as defined by Bloom's categories) and in using these questions in two particular questioning strategies (Taba and Suchman) in teaching social studies will not ask significantly greater numbers of these high-level questions in these strategies than will teachers experiencing in-service with only general attention to questions and questioning strategies. Also teachers receiving both the specific and the general in-service regarding questions and questioning strategies will not behave any differently regarding questions and questioning strategies than teachers who do not receive such training.

A secondary objective of the study is to analyze the types of questions that pupils use and their levels of achievement in social studies. Stated in null terms:

Pupils having teachers who experienced specific in-service regarding questions and questioning strategies will not ask significantly more high-level questions nor achieve significantly higher in social studies achievement than

pupils of teachers who received only general in-service on questions or no in-service on questions

General Plan

This pilot study will involve 30 subjects. The only requirement for initial selection will be that they teach social studies. From this original base of thirty, teachers will be randomly assigned to either one of the experimental groups or to the control group. The control group subjects will not recieve any in-service at all. However, their classrooms will be analyzed to ascertain the types of questions and questioning strategies being used and the types of pupil questions.

The inservice training for Condition A (stress on questions and questioning strategies) and Condition B (general consideration of questions and strategies) will involve ten three hour sessions, one per week. Each will be taught by the investigator to reduce or at least keep similar the personality-teaching style. Condition A will experience materials dealing with the various types of questions classified according to Bloom and also will receive training in the Taba strategy of questioning and Suchman's Inquiry strategy. Teachers will receive training in ways to evaluate their questions by using the TPQI and their pupils' questions by using the Suchman extended matrix. The teachers in Condition B will receive discussions on the general importance of asking high-level questions to get students to think. However, they will not receive any discussion as to specific types of questions to be employed nor specific questioning strategies to be used.

The methods for teaching each in-service group will be identical as far as can be controlled. Each group will receive a general introduction of the current scene in social studies. Each group will have large and small group sessions. Each group will have opportunities to role play using questions

with their peers.

The materials for Condition A will deal specifically with question types (Bloom, Taxonomy Cognitive Domain; Sanders, Classroom Questions) and with Taba and Suchman (Taba, Teachers' Handbook and Suchman, Developing Inquiry). These materials will be absent from Condition B. However, Condition B will consider articles that deal generally with the value of asking questions.

Condition C (the control group) will not receive any training nor materials relating to questions and questioning strategies. They will conduct business as usual in their classes. The only factor of the pilot study what will affect them is that permission will be obtained from them to tape some of their classes for analyses of their questions and questioning strategies. However less such information causes them to "try harder", the reason for the permission will be given as checking how pupils react to social studies data.

Analyses Planned

The study's design appears schematically below:

$$\boxed{R} \quad \begin{array}{ll} X_1 & Y \quad \text{(Experimental A)} \\ \hline X_2 & Y \quad \text{(Experimental B)} \\ \hline X_3 & Y \quad \text{(Control)} \end{array}$$

where X_1 equals the condition with the specific emphasis on question types and strategies (Condition A) and X_2 equals the condition with general treatment on questions and questioning strategies (Condition B) and X_3 equals the lack of consideration given to questions and questioning strategies. Y represents the teachers/pupils' abilities to deal with questions and questioning strategies. [R] represents the random assignment of subjects to groups.

In this pilot study it is assumed that most teachers and pupils are not

skilled questioners and that those teachers and pupils who do possess some skills in questioning will be distributed equally among the three groups. This assumption gains some support from the limited research that has been conducted.

Correlational procedures also may be used to investigate relationships between the types of questions teachers ask and the types of questions pupils ask and their level of achievement. Also attention may focus on any relationships between question strategy employed and pupils' social studies achievement.

Expected End Products

This pilot study should provide some empirical evidence as to the effectiveness of providing teachers with inservice focusing on questions and questioning strategies. Specifically, the research should provide some data that will assist in determining if teachers' questions and questioning strategies can be influenced by structuring situations in which types of questions are discussed and types of questioning strategies are practiced. Also, this pilot study should provide some data on the effects of teachers' questions on pupils questions and social studies achievement. Data as to effective ways to conduct in service may also be gathered.

Conclusion

This study is a beginning. It is hoped that the data gathered will enable more precision in education and will motivate additional detailed study.

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